X.—On a Collection of Birds made by Mr. Douglas Carruthers during his Journey from Uganda to the Mouth of the Congo. By W. R. OGILVIE-GRANT.

(Plates V. & VI.)

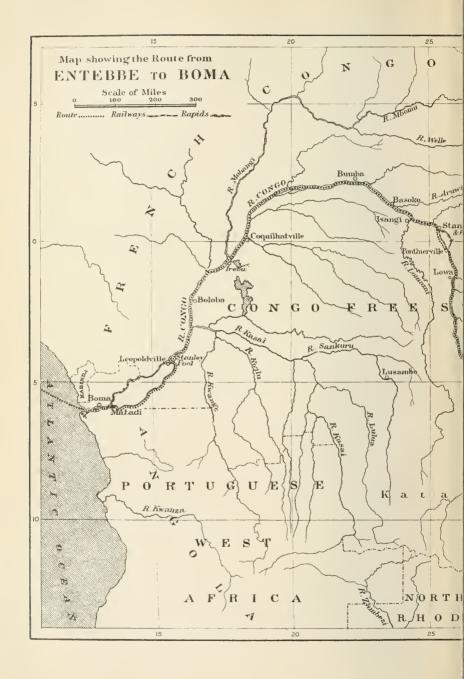
The collection of birds formed by Mr. Douglas Carruthers during his journey from Entebbe to the Mfumbiro Volcanoes, Lakes Kivu and Tanganyika, and the upper waters of the Congo, though comparatively small as regards the actual number of specimens, includes examples of no less than 133 species. Quite a number of these are of great interest, sixviz., Cinnyris tanganyicæ, C. marginatus, Anthothreptes carruthersi, Crateropus carruthersi, Muscicapa brevicauda, and Barbatula mfumbiri—representing hitherto unknown forms; while many, such as Brachycope anomala, Spermospiza griseogenys, and Laniarius dohertyi, are very rare birds and interesting on account of the locality, which extends our knowledge of their geographical range. Several of the highland species met with on the Mfumbiro Volcanoes prove to be identical with species already described from similar altitudes on Ruwenzori and the Mau Escarpment, and it is greatly to be regretted that ill-health prevented Mr. Carruthers from making a complete collection on this interesting mountainchain, which is now being more thoroughly explored by Mr. Rudolf Grauer.

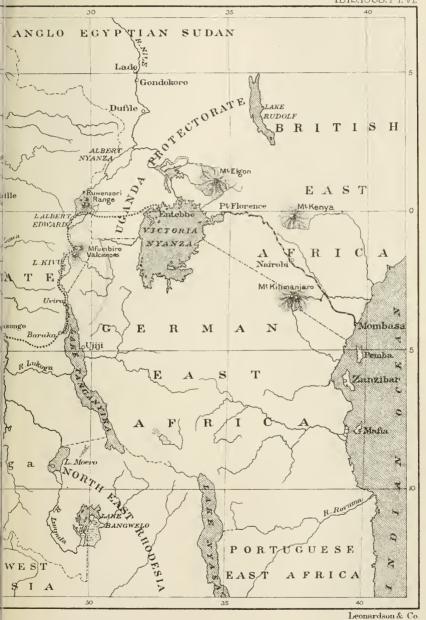
To save repetition, the titles of the principal works quoted in this paper have been abbreviated as follows:—

Captain Shelley's 'Birds of Africa' (1896-1906, incomplete) is referred to as "Shelley."

Dr. Reichenow's 'Die Vögel Afrikas' (1900–1905) is quoted as "Reich."

The following itinerary of the Expedition has kindly been furnished by Mr. A. F. R. Wollaston, who accompanied Mr. Carruthers during his journey from Uganda to the West Coast of Africa (see map, Plate VI.):—





Sept. 17, 1906.—Left Entebbe.

Oct. 1.—Mbarara (Ankole).

Oct. 12-22.—Lake Albert Edward (north end).

Oct. 25-29.— ,, (south end).

Nov. 1-25.—Mfumbiro Volcanoes.

Nov. 25 to Dec. 13.—Lake Kivu.

Dec. 13-21.—Between Lakes Kivu and Tanganyika.

Dec. 21-31.—Tanganyika (Uvira, north end, to Baraka, Burton Gulf).

Jan. 1-30, 1907.—Baraka (Tanganyika) to Kasongo (Congo).

[Kalembe-lembe (5th), Niembo (9th), Kabambare (13th to 19th).]

Jan. 30 to Feb. 1.—Kasongo.

Feb. 4-12.—Kamimbe (or Sendwe).

Feb. 13.-Lokandu.

Feb. 15-22.—Ponthierville.

Feb. 23-29.—Stanleyville. No birds were collected between this place and Boma at the mouth of the Congo, which was reached on the 17th of March, 1907.

Introduction. By Douglas Carruthers.

After the termination of the Ruwenzori Expedition I determined, in company with Mr. A. F. R. Wollaston, to cross Africa from Uganda to the West Coast in order to make a collection of birds.

Our route took us through little-known districts, large areas of which had never been collected over before; but owing to fever and sickness I was unable to make so large and complete a collection of birds as I had intended, and had to leave almost untouched the most interesting region of all—namely, the Mfumbiro Volcanoes.

Leaving Entebbe on the 17th of September, 1906, we travelled through Southern Uganda to Lake Albert Edward, obtaining, however, but few birds that had not already been procured by the Ruwenzori Expedition. At the south end of Lake Albert Edward, which is really a vast marsh, I saw extraordinary numbers of water-birds, such as Pelicans, Darters, Geese, Gulls, Terns, Stilts, and numerous other Waders, as well as Kingfishers.

Here, at the threshold of the volcano-region, I was taken ill with fever, which prostrated me for a month; and when I was well enough to travel there was only time to make a

small collection of the birds of this district. The few species procured were, however, interesting, as shewing the likeness between the highland fauna of Mfumbiro and that of Ruwenzori. The country surrounding the volcanoes is covered with long grass, while the volcanoes themselves are forested on the lower slopes with vegetation very similar to that of Ruwenzori at 8000 ft. This gradually merges into a bamboo-forest of large area, and above it there is a mossand lobelia-region similar to that met with on the higher parts of Ruwenzori. There is also a good deal of bare rock, and on the highest volcano, Karissimbi, often a little snow at about 13,000 ft. Of the eight volcanoes only one is active.

At 7000 ft. I procured the following birds:—The Yellow-shouldered Weaver-Finch (Pyromelana xanthomelas), the Grey-headed Waxbill (Neisna nyansæ), Sharpe's Crimsonwing (Cryptospiza ocularis), Grauer's Seed-eater (Serinus graueri), the Black-headed Babbler (Turdinus atriceps), Doherty's Bush-Shrike (Laniarius dohertyi), and the Ruwenzori Bush-Robin (Tarsiger ruwenzorii). Had I been able to explore the higher slopes, many more of the species met with on Ruwenzori would, no doubt, have been found. It would be difficult ground to work, for the country is entirely unknown, and to enable one to travel about on the volcanoes it would be necessary to cut paths.

After reaching Lake Kivu, a small but exceedingly beautiful lake surrounded by steep hills and dotted with innumerable islands, we passed down the western side in canoes, visiting the island called "Kidjwe." This is well forested, but all the other islands as well as the hilly shores are covered with short grass.

Journeying through very hilly country almost devoid of bird-life, and passing down the Russisi Valley, we reached Lake Tanganyika. Here I saw many birds not met with further to the north.

West of Lake Tanganyika, and between that lake and the Congo, parts of the country are hilly, covered with grass and acacia, and interspersed with wide plains, overgrown with long grass. Here I procured specimens of four interesting new species (Cinnyris marginatus, C. tanganyicæ, Anthothreptes carruthersi, and Crateropus carruthersi), but was again taken ill with fever, and had to be carried for a fortnight until the Congo River was reached at Kasongo, 2000 miles from its mouth. At that place the river is about 800 yards broad and flows through open grass-land.

Five days' journey down the river brought us to the southern edge of the Congo forest, which continues on either bank without a break for 1500 miles. We followed the river down to its mouth and collected at different places on the way.

At Ponthierville I was able to procure a number of birds in a comparatively short time, owing to the presence of rubber-plantations, in which the undergrowth in the forest had been cleared away and the forest-trees only remained. The impenetrable nature of the undergrowth is the chief difficulty one has to contend with in making a collection of birds in the Congo forest.

We found the Congo River itself remarkably poor as regards its bird-life. There were few sandbanks, and no marshes or feeding-grounds, and during the whole journey I saw only one Duck. The heavy forest hung over the water's edge on either bank, and every island was clothed with rank vegetation. Flocks of Parrots and a few Hornbills were observed crossing over the forest, while Kingfishers, Herons, and Sandpipers were occasionally seen, but little else. The forest itself is full of bird-life, and no doubt much still remains to be done there.

By way of Stanleyville, Leopoldville, Matadi, and Boma we reached the West Coast on the 17th of March, 1907.

DILOPHUS CARUNCULATUS (Gmel.).

Perissornis carunculata Reich. ii. p. 670 (1903).

No. 5003. *a.* 3. West coast of Lake Victoria, 4000 ft., 25th Sept.

Iris brown; bare skin round the eyes yellow; bill whitish; bare skin on the throat black; feet brown.

[The Wattled Starling is found in large flocks .- D. C.]

DICRURUS CORACINUS Verr.

Dicrurus coracinus Reich. ii. p. 650 (1903).

No. 5242. a. 3. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris red; bill and feet black.

Oriolus nigripennis Verr.

Oriolus nigripennis Reich. ii. p. 661 (1903).

No. 5207. a. β . Ponthierville, Upper Congo, 2000 ft., 18th Feb.

Iris dark red; bill pink; feet dark grey.

Pyromelana sundevalli (Bonap.).

Pyromelana nigrifrons Reich, iii. p. 122 (1904).

Pyromelana sundevalli Shelley, iv. p. 98 (1905).

Nos. 5088, 5098. a, b. \circ . North of Lake Tanganyika, 3000 ft., 18th & 20th Dec.

No. 5165. $c.\ \mathcal{J}$. East of Kasongo, Upper Congo, 2000 ft., 28th Jan.

Iris dark brown; bill and feet brown.

All three examples of the Red Bishop-Bird are in worn change-plumage, the male especially being very ragged.

Pyromelana xanthomelas (Rüpp.).

Euplectes vanthomelas Reich. iii. p. 128 (1904); Shelley, iv. p. 76 (1905).

No. 5044. a. d. Mfumbiro Volcanoes, 7000 ft., 23rd Nov.

Nos. 5060, 5061, 5068, 5077. b-e. δ \circ . Lake Kivu, 4900 ft., 1st–14th Dec.

No. 5104. f. J. North-west of Lake Tanganyika, 2800 ft., 28th Dec.

Iris dark brown; bill black, lower mandible whitish; feet dark brown.

Two males of the Yellow-shouldered Weaver-Finch (Nos. 5044, 5077) have nearly attained their full breeding-

plumage, while the other males, also killed in December, are in change-plumage, though one has a small patch of new black feathers on the left side of the forehead.

Pyromelana flammiceps (Swains.).

Pyromelana flammiceps Reich. iii. p. 118 (1904); Shelley, iv. p. 104 (1905).

Nos. 5091, 5092. a, b. 3. North of Lake Tanganyika, 3000 ft., 18th–19th Dee.

Nos. 5102, 5103. c, d. δ . North-west of Lake Tanganyika, 2800 ft., 28th Dec.

Nos. 5162, 5164. $e, f. \ \ \ \ \ \ \$ East of Kasongo, Upper Congo, 2000 ft., 23rd & 28th Jan.

Iris dark brown; bill black; feet brown.

One male (No. 5164) of the Fire-erowned Bishop-Bird has partially assumed the breeding-plumage; the remainder of the specimens are in change-plumage.

PENTHETRIA MACRURA (Gmel.).

Coliuspasser macroura Reich. iii. p. 138 (1904); Shelley, iv. p. 49 (1905).

Nos. 5148, 5149, 5152, 5157. *a-d.* 3. North-west of Lake Tanganyika, 2300–2500 ft., 8th–9th Jan.

No. 5160. e. 3 imm. East of Kasongo, Upper Congo, 2000 ft., 20th Jan.

Iris dark brown; upper mandible black, lower mandible pale grey.

Three male examples of the Yellow-mantled Whydah are in full breeding-dress; the fourth (No. 5149), procured on the 8th of January, has only partially assumed this plumage.

The immature example in somewhat worn plumage resembles the female.

UROBRACHYA PHŒNICEA (Heugl.).

Urobrachya phænicea Reich. iii. p. 130 (1904); Shelley, iv. p. 65 (1905).

Nos. 5022, 5038. a, b. d et d imm. Mfumbiro Voleanoes, 5000 ft., 16th & 20th Nov.

Iris dark hazel; bill light grey; feet black.

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CRYPTOSPIZA OCULARIS Sharpe.

Cryptospiza ocularis Sharpe, Bull. B. O. C. xiii, p. 8 (1903).

Cryptospiza reichenowi Alexander, Ibis, 1903, p. 351 [part.]; Reich. iii. p. 174 (1904) [part.]; Shelley, iv. p. 278 (1905) [part.].

No. 5047. a. d. Mfumbiro Volcanoes, 7000 ft.,

24th Nov.

Iris dark hazel; bill black; feet brown.

As already briefly noted [cf. Bull. B. O. C. xix. p. 42 (1907)], Sharpe's Crimson-wing (C. ocularis) appears to be a distinct species from C. reichenowi (Hartl.). The male procured on the Mfumbiro Volcanoes is in every way similar to a series of males collected on Ruwenzori and to the type specimen of C. ocularis from the same locality—not from Mount Elgon, as stated by Mr. Boyd Alexander (vide suprà). Females from Ruwenzori differ from the description and figure of the female types of C. reichenowi from Camaroon in having the feathers on the lores and the area surrounding the eye pale olive-buff (in the male they are crimson). In C. reichenowi only the patch in front of the eye is pale fulyous.

Quelea cardinalis (Hartl.).

Quelia cardinalis Reich. iii. p. 112 (1904); Shelley, iv. p. 119 (1905).

No. 5093. a. 3 imm. North of Lake Tanganyika, 3000 ft., 19th Dec.

Iris dark brown; bill and feet brown.

A male of the Cardinal Dioch is evidently an immature specimen, its plumage being similar to that of the female. There is, however, a trace of orange-red along the superciliary stripe and below the eye, which seems to indicate the first step towards attaining the scarlet head of the adult male.

Quelea erythrops (Hartl.).

Quelea erythrops Reich. iii. p. 111 (1904); Shelley, iv. p. 117 (1905).

No. 5139. a. J. East of Kasongo, Upper Congo, 3000 ft., 7th Jan.

Iris and bill dark brown; feet brown.

This specimen is of considerable interest, and though I have provisionally referred it to the present species, it may, when more material is available, eventually prove to be distinct. It differs from other adult male examples of the Red-headed Dioch in the British Museum in having the head dark maroon-red instead of dark scarlet-red. I have compared it with the description and figure of Foudia hamatocephala Heuglin, but this appears to be a true synonym of Q. erythrops.

Spermestes poensis (Fras.).

Spermestes poensis Reich. iii. p. 152 (1904); Shelley, iv. p. 164 (1905).

Nos. 5211, 5212. $a, b. \ 3 \ ?$. Ponthierville, Upper Congo, 2000 ft., 18th Feb.

Iris dark hazel; bill grey; feet black.

A pair of the Southern Black-and-White Mannikin are perfectly similar to one another in plumage.

LAGONOSTICTA RUBERRIMA.

Lagonosticta brunneiceps ruberrima Reich. iii, p. 198 (1904).

Lagonosticta brunneiceps Shelley, iv. p. 258 (1905) [part.].

No. 5011. a. Q. S.W. Uganda, 4000 ft., 29th Sept.

No. 5017. b. J. North of Lake Albert Edward, 3000 ft., 12th Oct.

Nos. 5089, 5090. c, d. & ? . North of Lake Tanganyika, 3000 ft., 18th Dec.

Iris dark red; eyelids yellow; bill black and pink; feet brown.

The specimens collected by Mr. Carruthers, as well as a series from South-east Ruwenzori, all belong to the darker Equatorial form of the Brown-capped Fire-Finch, which appears to be a fairly well-marked subspecies, though Captain Shelley does not recognise it as such.

LAGONOSTICTA RHODOPARIA Heugl.

Lagonosticta rhodopareia Reich. iii. p. 200 (1904); Shelley, iv. p. 250, pl. xxxiv. fig. 1 (1905).

Lagonosticta ugandæ Salvad. Boll. Mus. Torino, xxi.

no. 542, p. 2 (1906).

Lagonosticta rubricata hildebrandti, p. 167, & L.r. hæmato-cephala, p. 168, Neumann, Orn. Monatsb. xv. (1907).

Nos. 5027, 5028, 5053. a-c. 3. Mfumbiro Volcanoes,

5000 ft., 17th Nov.

Nos. 5057, 5062, 5063, 5064, 5065, 5069, 5071, 5072. d-l. β \circ . Lake Kivu, 4900 ft., 30th Nov. to 4th Dec.

Iris dark hazel; bill black, base of lower mandible bluish

grey; feet very dark grey.

The fine series of this Fire-Finch in the present collection, together with the series in the British Museum and three specimens procured by the Ruwenzori Expedition, have greatly assisted me in investigating the conclusions arrived at by Prof. Oscar Neumann [cf. Orn. Monatsb. xv. pp. 167–168 (1907)]. He states that he has examined the type of L. rhodoparia Heugl., which was obtained at Keren, in Bogosland, at an elevation of from 4000 to 5000 ft., and that, in his opinion, it is perfectly distinct from the allied forms found in East Africa and in Nyasaland which have hitherto been included under that name by Dr. Sharpe and other African ornithologists.

L. rhodoparia Hengl. from Bogosland is said to differ from the East-African birds in having the top of the head brownish-grey without any wash of red; but an adult male and female from the Gessima River, Likipia, B. E. Africa, collected in January and in somewhat worn plumage, seem to agree very closely with Heuglin's description, and have the top of the head brown, with scarcely a trace of red edges to the feathers, while the bright crimson feathers at the base of the bill and above the eyes form a marked contrast to the crown.

Prof. Neumann has named the East-African bird *L. rubricata hildebrandti*, and his type specimen being a male from Ukamba, B. E. Africa, should belong to the same form

as the birds from the Gessima River; but, as already stated, the latter apparently resemble the typical example of *L. rhodoparia* from Bogosland!

Twelve adult males from Nairobi, Nandi, Kakamega, Entebbe, Toro, Ruwenzori, Lake Kivu, and the Mfumbiro Volcanoes, shot between the months of April and January and all in more or less fresh plumage, are typical examples of Prof. Neumann's L. hildebrandti (= L. ugandæ Salvad.), having the crown and nape olive-grey washed with rose-red *.

Birds from Dar-es-Salaam, Mozambique, and Nyasaland have been named *L. rubricata hæmatocephala* by Prof. Neumann, and certainly, as a whole, have the red wash on the crown and nape rather more marked than is the case with birds found further north; but some individuals from Nyasaland are inseparable from British East-African specimens. I therefore agree with Captain Shelley in regarding them all as one species under the name of *L. rhodoparia* Heugl.

[Since the above was written I have been able to examine the type specimen of *L. rhodoparia* Heugl., and find that it closely resembles the birds from the Gessima River mentioned above. The differences in the colour of the upper parts are probably seasonal, the birds being greyer when freshly moulted and growing browner as the feathers become faded and worn.]

L. congica Sharpe, founded on what is probably a somewhat immature female example, is very closely allied to L. rhodoparia, but the head and mantle are greyer, and the former has scarcely a trace of the pinkish wash which is characteristic of all the female specimens of L. rhodoparia in the British Museum, while the crimson of the rump and upper tail-coverts is even brighter.

Specimens in the Tring Museum from Ussure have been identified by Prof. Neumann as *L. congica*, but they are, in my opinion, referable to *L. rhodoparia*, and do not possess the greyer crown and upper parts characteristic of the type from Kasongo. I am, however, by no means sure that

^{*} Cf. Neumann, Bull. B. O. C. xxi. p. 59 (1908).

L. congica is really separable from L. rhodoparia, the greyer crown and mantle being very possibly merely signs of immaturity.

To settle this question it would be necessary to examine adult birds from Kasongo; but though Mr. Carruthers procured a number of specimens at Mfumbiro and Lake Kivu, he does not appear to have met with the species on the Congo.

The true *L. rubricata* from South Africa may always be distinguished from all the above-mentioned dark-billed forms by having the base of the lower mandible of a *whitish* horn-colour.

PYTELIA BELLI Grant.

Pytelia belli Grant, Bull. B. O. C. xxi. p. 14 (1907).

No. 5120. a. d. North-west of Lake Tanganyika, 3000 ft., 2nd Jan.

Iris orange; bill red; feet pale brown.

This bird agrees perfectly with the male type of *P. belli* from S.E. Ruwenzori, having the grey on the cheek extending beneath the eye to the lores and the red on the chin and throat continued over the greater part of the chest, of which only the base is yellow.

NEISNA NYANSÆ.

Neisna dufresneyi nyansæ Neumann, J. f. O. 1905, p. 350. Neisna minima Grant, Bull. B. O. C. xvi. p. 117 (1906).

No. 5046. a. 3. Mfumbiro Volcanoes, 7000 ft., 24th Nov.

No. 5070. b. ς . Lake Kivu, 4900 ft., 2nd Dec.

Iris dark red; upper mandible black, lower mandible red; feet black.

In describing this form from a series of specimens collected on Ruwenzori at an elevation of 6000 ft., I overlooked the fact that it had already been characterized by Prof. Neumann from examples procured by Emin at Bukoba. The abovementioned specimens in the present collection agree perfectly with the types of *N. minima* from Ruwenzori.

NIGRITA BRUNNESCENS.

Nigrita brunnescens Reich. iii. p. 167 (1904); Shelley, iv. p. 140 (1905).

No. 5241. a. & imm. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris dark brown; bill black, spots on gape yellow; feet dark brown.

Apparently an immature male of the Southern Chestnut-breasted Negro-Finch, the upper side being of precisely the same colour as in the typical *N. brunnescens*.

SPORÆGINTHUS SUBFLAVUS (Vieill.).

Estrilda subflava Reich. iii. p. 186 (1904) [part.]; Shelley, iv. p. 207 (1905).

Nos. 5051, 5052. a, b. δ . Mfumbiro Volcanoes, 5000 ft., 25th Nov.

Iris orange; bill red; feet pale brown.

These specimens are undoubtedly referable to this species and not to the Southern Zebra-Waxbill [S. clarkei (Shelley)], which occurs as far north as Msara, N.E. Kenya.

SPORÆGINTHUS MELPODA (Vieill.).

Estrilda melpoda Reich. iii. p. 186 (1904); Shelley, iv. p. 212 (1905).

No. 5087. α . \circ . North of Lake Tanganyika, 3000 ft., 17th Dec.

Nos. 5199, 5210. b, c. 3. Ponthierville, Upper Congo, 2000 ft., 11th & 18th Feb.

Iris brown; bill red; feet brown.

The occurrence of the Orange-cheeked Waxbill on the Upper Congo and to the north of Lake Tanganyika appears to extend its known range a long way to the east. Dr. Reichenow gives its habitat as West Africa, from Senegambia to the Congo; while Captain Shelley says that it ranges from Senegambia into Angola.

ESTRILDA MINOR (Cab.).

Estrilda astrild minor Reich. iii. p. 180 (1904).

Estrilda minor Shelley, iv. p. 198 (1905).

Nos. 5021, 5030, 5031, 5034. a-d. $\beta \circ$. Mfumbiro Volcanoes, 5000 ft., 16th–19th Nov.

Nos. 5099, 5100. e, f. &. North of Lake Tanganyika, 3000 ft., 20th Dec.

Iris dark hazel; bill red; feet black.

Estrilda Roseicrissa Reich.

Estrilda roseicrissa Reich, iii. p. 184 (1904); Shelley, iv. p. 215 (1905).

Nos. 5079, 5080. *a*, *b*. ♂♀. Lake Kivu, 4900 ft., 15th Dec.

Iris dark red; bill red; feet brown.

The birds procured by Mr. Carruthers are apparently a pair, and the male is marked "breeding." Both specimens have the lower part of the abdomen and flanks bright pink, the female being rather the more brightly coloured of the two. An adult female killed with a young male on S.E. Ruwenzori on the 2nd of June has only a slight wash of pink on the feathers of the lower abdomen and flanks. Probably the absence of colour is partly due to season, as the plumage is decidedly worn.

Anaplectes melanotis (Lafr.).

Anaplectes melanotis Reich, iii. p. 26 (1904); Shelley, iv. p. 338 (1905) [part.].

No. 5010. a. d. S.W. Uganda, 4000 ft., 29th Sept.

Iris dark hazel; bill red; feet pale brown.

Captain Shelley has included A. blundelli Grant as a variety of the Black-eared Scarlet Weaver-Fineh, but there does not seem to be the slightest evidence to shew that the former, which has the back black, is not a perfectly distinct species.

HETERHYPHANTES NIGRICOLLIS (Vieill.).

Ploceus nigricollis Reich. iii. p. 44 (1904).

Heterhyphantes nigricollis Shelley, iv. p. 381 (1905).

No. 5168. a. \circ . Below Kasongo, Upper Congo, 2000 ft., 5th Feb.

Iris dark hazel; bill black; feet grey.

Examples of Vieillot's Black-and-Yellow Weaver-Finch were also procured by the Ruwenzori Expedition at Fort Beni on the Semliki River and in the Mpanga Forest near Fort Portal.

HYPHANTORNIS FEMININA Grant.

Hyphantornis feminina Grant, Bull. B. O. C. xxi. p. 15 (1907).

No. 5189. a. 3 imm. Below Kasongo, Upper Congo, 2000 ft., 9th Feb.

Iris orange; bill black; feet brown.

This specimen is apparently an immature male of this species, which I recently described as different from *H. abys-sinicus* (Gmel.), the female having the under parts mostly yellow as in *H. cucullatus* (Müll.).

HYPHANTORNIS XANTHOPS Hartl.

Ploceus xanthops Reich. iii. p. 88 (1904).

Xanthophilus xanthops Shelley, iv. p. 483 (1905).

No. 5058. a. d. Lake Kivu, 4900 ft., 30th Nov.

No. 5111. b. β . North-west of Lake Tanganyika, 29th Dec.

Iris white; bill black; feet brown.

A series of Hartlaub's Golden Weaver-Finch was obtained on Ruwenzori, but the great majority of the specimens procured were immature birds. The types of *H. xanthops* (Hartl.), *H. camburni* Sharpe, and *H. jamesoni* Sharpe are all in the British Museum, and after comparing these and examining the fine series now available I must agree with Captain Shelley in regarding the two latter as synonyms of the former.

MALIMBUS CASSINI (Elliot).

Malimbus cassini Reich. iii. p. 19 (1904); Shelley, iv. p. 350 (1905).

No. 5243. a. 3. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris dark brown; bill black; feet dark brown.

I have compared this male with the type specimen of Sycobius cassinii Elliot, which it resembles in all particulars. Mr. Bates obtained examples of this species at Efulen, Camaroon. The present record extends its known range a long way to the east.

Malimbus nigerrimus (Vieill.).

Ploceus nigerrimus Reich. iii. p. 50 (1904).

Melanopteryx nigerrina Shelley, iv. p. 362 (1905).

No. 5222. a. δ . Ponthierville, Upper Congo, 2000 ft., 20th Feb.

Iris yellow; bill black; feet brown.

BRACHYCOPE ANOMALA (Reichenow).

Brachycope anomala Reich. iii. p. 97 (1904); Shelley, iv. p. 446 (1905).

Nos. 5200, 5223. a, b. δ [\circ]. Ponthierville, Upper Congo, 2000 ft., 11th & 20th Feb.

Iris dark brown; bill black; feet brown.

The adult male and what appears to be the adult female of this curious short-tailed Weaver are interesting additions to the British Museum, the only other examples of this rare species in the collection being two adult males from Jabbir, on the Welle Makua (Bomakandi) River, procured by Mr. J. J. Harrison on the 26th of March, 1904.

The bird supposed to be a female agrees perfectly with the description given by Captain Shelley of female specimens in the Tring Museum obtained by Bonny.

SPERMOSPIZA POLIOGENYS.

Spermospiza poliogenys Grant, Bull. B. O. C. xix. p. 32 (1906).

No. 5173. $a. \ ?$. Below Kasongo, Upper Congo, 2000 ft., 7th Feb.

Iris dark hazel; bill horn-blue, pale at the tip; feet black. This female appears to be a somewhat younger example of the Grey-cheeked Weaver-Finch (S. poliogenys), first described from Fort Beni on the Semliki River. It differs chiefly from the type, which is also a female, in having the chin, throat, and chest vermilion instead of crimson-scarlet, and in lacking the small patch of crimson-tipped feathers on the sides of the lower breast. A number of greyish-buff feathers in the middle of the belly seem to indicate that the bird is scarcely mature.

[Found among damp undergrowth in very thick forest.—D. C.]

PETRONIA SUPERCILIARIS Blyth.

Petronia flavigula Shelley, iii. p. 265, pl. xxviii. fig. 2 (1902).

Petronia superciliaris Reich. iii. p. 244 (1904).

No. 5144. a. 3. North-west of Lake Tanganyika, 3000 ft., 7th Jan.

Iris dark hazel; bill dark brown; feet dark grey.

The occurrence of the Southern Rock-Sparrow on the Upper Congo carries its known range a little further to the north. It has been recorded as far north as Ussure on the east and Leopoldville on the west.

Passer diffusus (Smith).

Passer diffusus Shelley, iii. p. 251 (1902).

Passer griseus Reich. iii. p. 230 (1904).

No. 5163. a. Q. East of Kasongo, Upper Congo, 2000 ft., 28th Jan.

Iris brown; bill black; feet brown.

Presumably this bird should belong to the form mentioned by Dr. Reichenow under the name of *P. griseus ugandæ*; but the wing measures 82 mm. I agree with the conclusions arrived at by Captain Shelley and include all the four forms that have been recognised under the present heading, as I am unable to find any characters by which they may be separated.

CHRYSOMITRIS FRONTALIS.

Spinus citrinelloides frontalis Reich. iii. p. 275 (1904).

Iris, bill, and feet brown.

A large series of this handsome Siskin was collected by the Ruwenzori Expedition. All the males have the yellow frontal band narrowly bordered anteriorly with black. In the male collected by Mr. Carruthers this character is scarcely apparent, but in other respects it agrees. The black markings on the upper parts vary greatly among specimens from the same locality and are no doubt a sign of age, the oldest males having the top of the head and back bright olive-green with very narrow black shaft-streaks.

V SERINUS SHARPEI Neumaun.

Serinus sharpei Neumann, J. f. O. 1900, p. 287; Reich. iii. p. 266 (1904); Swynnerton, Ibis, 1908, p. 26.

Serinus shelleyi Neumann, Orn. Monatsb. xi. p. 184 (1903). Serinus sulphuratus Grant, Ibis, 1905, p. 206; Swynnerton, Ibis, 1908, p. 26.

Nos. 5033, 5035. a, b. 39. Mfumbiro Voleanoes, 5000 ft., 18th & 19th Nov.

Iris dark brown; bill and feet brown.

These birds belong to the smaller yellower-breasted form of S. sulphuratus, which has been separated by Professor Neumann under the above heading.

Though typical large-billed, green-breasted examples of S. sulphuratus (Linn.) from Cape Colony differ considerably from typical examples of S. sharpei from East Africa, a series of birds from the intermediate localities shews that the two forms grade imperceptibly into one another. As regards S. shelleyi Neumann, we entirely agree with Dr. Reichenow in regarding it as synonymous with S. sharpei. This form may be said to range from Uganda southwards to Natal, but birds from the latter locality are intermediate as regards the greater size of the bill and length of the wing, and in the amount of greenish wash on the breast.

The bird obtained at Helvetia by Mr. D. M. Stanley and mentioned by Mr. Swynnerton (above, p. 26) under the name of S. sulphuratus is now in the British Museum. It is a typical example of S. sharpei.

SERINUS ICTERUS (Vieill.).

Serinus butyraceus (Linn.); Shelley, iii. p. 193 (1902).

Serinus icterus Grant, Ibis, 1905, p. 206; Swynnerton, Ibis, 1908, p. 27.

No. 5113. a. ς . North-west of Lake Tanganyika, 2800 ft., 29th Dec.

Iris dark brown; bill black; feet dark brown.

SERINUS GRAUERI.

Serinus striolatus graueri Hartert, Bull. B. O. C. xix. p. 84 (1907).

No. 5049. a. \cong . Mfumbiro Volcanoes, 7000 ft., 24th Nov.

Iris dark brown; bill and feet brown.

Dr. Hartert has separated the Streaked Seed-eater from Ruwenzori under this heading on account of its darker plumage. The same dark form was procured by Mr. Carruthers on the Mfumbiro Volcanoes.

FRINGILLARIA TAHAPISI (Smith).

Fringillaria tahapisi Shelley, iii. p. 164 (1902) [part., nec ex Sokotra]; Reich. iii. p. 289 (1904).

No. 5138. a. \circ . North-west of Lake Tanganyika, 4000 ft., 6th Jan.

Iris dark brown; bill black; feet brown.

Under this heading Captain Shelley has included the Rock-Bunting (F. insularis) from Sokotra; but this pale insular form can be easily distinguished.

ANTHUS RUFULUS Vieill.

Anthus rufulus Shelley, ii. p. 319 (1900).

Anthus rufulus cinnamomeus Reich. iii. p. 313 (1904).

No. 5023. a. δ . Mfumbiro Voleanoes, 5000 ft., 16th Nov.

Iris dark hazel; bill black, of a pale horn-colour at the base of the lower mandible; feet brown.

An immature example of the Rufous Pipit in very worn plumage.

Anthus Nicholsoni Sharpe.

Anthus nicholsoni Shelley, ii. p. 312 (1900); Reich. iii. p. 316 (1904).

No. 5084. a. \circ . North of Lake Tanganyika, 3000 ft., 16th Dec.

Iris dark brown; upper mandible black, lower mandible brown; feet pale brown.

This is apparently an immature example of Nicholson's Pipit, with the characteristic short bill. The marked whitish eyebrow-stripe continued backwards along the side of the head, the well-marked blackish stripe down each side of the

throat, and the indefinite light pattern on the outer tail-feathers, in conjunction with the moulting outer primary-quills, seem to indicate that the bird is in its first plumage. It has the feathers of the upper parts very dark brown narrowly margined with sandy brown.

NECTARINIA ERYTHROCERIA Heugl.

Cinnyris erythrocerius Shelley, ii. p. 49 (1900).

Nectarinia erythrocerca Reich. iii. p. 495 (1905).

No. 5016. a. δ . North of Lake Albert Edward, 3000 ft., 12th Oct.

Iris dark hazel; bill and feet black.

I have followed Dr. Reichenow in placing Heuglin's Wedge-tailed Sun-bird in the genus *Necturinia*. The middle tail-feathers measure 2.7 inches, while the second pair measure 1.9.

CINNYRIS IGNEIVENTRIS.

Cinnyris venustus igneiventris Reich. iii. p. 475 (1905). No. 5067. a. & vix ad. Lake Kivu, 4900 ft., 1st Dec. Iris dark hazel; bill and feet black.

A large series of the Fire-bellied Sun-bird was procured by the Ruwenzori Expedition. The present specimen, though still lacking the full plumage on the crown, has the fiery orange of the lower breast and belly very brilliant.

CINNYRIS FALKENSTEINI Fischer & Reichenow.

Cinnyris falkensteini Shelley, ii. p. 66, pl. iii. fig. 1 (1900). Cinnyris venustus falkensteini Reich. iii. p. 474 (1905).

No. 5137. a. 3 vix ad. North-west of Lake Tanganyika, 4000 ft., 5th Jan.

Iris dark hazel; bill and feet black.

This male of Falkenstein's Sun-bird is in nearly adult dress, but still retains a few feathers of the first plumage on the forehead and upper mantle, while the lower breast and belly are yellow without any trace of orange. In this respect it exactly resembles somewhat immature examples in the British Museum from Kilimanjaro.

CINNYRIS TANGANYIKE Grant.

Cinnyris tanganyikæ Grant, Bull. B. O. C. xix. p. 105 (1907).

No. 5132. a. d. North-west of Lake Tanganyika, 4000 ft., 4th Jan. (Type of the species.)

Iris dark hazel; bill and feet black.

This new Sun-bird is most nearly allied to *C. bouvieri* Shelley, but is somewhat larger and has a longer bill, while the pectoral tufts are orange and yellow instead of scarlet and yellow.

	Adult male of C. tanganyicæ Grant.	
	in.	in.
Total length	4.7	4.1
Culmen	1.02	0.9
Wing	2.25	2.1
Tail	1.55	1.4
Tarsus	0.65	0.62

CINNYRIS SUPERBUS (Shaw).

Cinnyris superbus Shelley, ii. p. 41 (1900); Reich. iii. p. 477 (1905).

Nos. 5169, 5170, 5179. a-c. 3 \circ . Below Kasongo, Upper Congo, 2000 ft., 5th–7th Feb.

Iris dark hazel; bill and feet black.

CINNYRIS CUPREUS (Shaw).

No. 5032. α . β . Mfumbiro Volcanoes, 5000 ft., 18th Nov.

No. 5066. b. d. Lake Kivu, 4900 ft., 1st Dec.

Iris very dark hazel; bill and feet black.

Examples of the Copper-coloured Sun-bird from West Africa are on the whole somewhat smaller than birds from Uganda and have a shorter bill. The type of Shaw's Certhia cuprea came from Malimbe at the mouth of the Congo River.

CINNYRIS MARGINATUS Grant.

Cinnyris marginatus Grant, Bull. B. O. C. xix. p. 106 (1907).

No. 5180. a. J. Below Kasongo, Upper Congo, 2000 ft., 8th Feb. (Type of the species.)

This Sun-bird is most nearly allied to *C. reichenowi* Sharpe, but is smaller and has a much shorter bill. The green of the upper surface is less golden, the upper tail-coverts are tipped with peacock-blue with purple reflections, and the scarlet breast-feathers are margined with purplish blue. The iris is hazel and the bill and feet are black. The total length is about 3.6 inches; the culmen 0.65; the wing 1.86; the tail 1.0; and the tarsus 0.5.

The discovery of this very distinct though diminutive species is of considerable interest.

CINNYRIS OBSCURUS (Jard.).

Cyanomitra obscura Shelley, ii. p. 125 (1900); Reich. iii. p. 450 (1905).

Nos. 5167, 5187, 5214, 5239. a-d. δ imm. et $\mathfrak P$. Between Kasongo and Ponthierville, Upper Congo, 2000 ft., 4th–22nd Feb.

Iris dark hazel; bill and feet black.

An immature male and three females of the Pale Olive Sun-bird collected by Mr. Carruthers agree well with West-African specimens. Adult males were procured by the Ruwenzori Expedition at Fort Beni on the Semliki, and in the Mpanga Forest near Fort Portal.

CINNYRIS ANGOLENSIS Less.

Chalcomitra angolensis Shelley, ii. p. 111 (1900); Reich. iii. p. 461 (1905).

No. 5198. a. δ . Below Kasongo, Upper Congo, 2000 ft., 11th Feb.

lris dark hazel; bill and feet black.

The fine male example of the Green-throated Brown Sunbird procured by Mr. Carruthers at the above-given locality appears to extend the known range of the species somewhat further to the south-east.

CYANOMITRA CYANOLÆMA.

Cyanomitra cyanolæma Shelley, ii. p. 130 (1900).

Chalcomitra cyanolæma Reich. iii. p. 456 (1905).

No. 5238. a. β . Ponthierville, Upper Congo, 2000 ft., 22nd Feb.



ANTHOTHREPTES CARRUTHERSI, & & 9.

Iris dark hazel; bill and feet black.

This example of the Blue-throated Brown Sun-bird seems to have the bill slightly shorter than in West-African specimens. The culmen from the anterior margin of the nostril measures 0.69 inch; while in males from Camaroon it varies from 0.7 to 0.72, in males from Fernando Po from 0.75 to 0.79, and in males from Gaboon from 0.71 to 0.79. Four males from Fantee have the bill 0.82; and in one male from Angola it measures 0.8. It thus appears that examples from Fantee have the longest bill, and that the specimen from the Upper Congo (Kasongo District) has the shortest. The wing-measurements shew little variation; in the present specimen the wing measures 2.65 inches.

Anthothreptes Carruthersi. (Plate V.)

Anthothreptes carruthersi Grant, Bull. B. O. C. xix. p. 106 (1907).

Nos. 5118, 5124, 5125. a-c. \Diamond \Diamond . West of Lake Tanganyika, 3000–4000 ft., 2nd & 3rd Jan. (*Types of the species*.) Iris dark hazel; bill and feet black.

This handsome Sun-bird is evidently most nearly allied to A. angolensis Neumann [cf. Orn. Monatsb. xiv. p. 67 (1906)], which I had overlooked in my original description of it. Through the kindness of Mr. Rothschild, I have been able to examine the type of this species, which was procured in Angola by Dr. W. J. Ansorge. A. carruthersi appears to differ from it chiefly in having the long downy feathers of the rump (below the metallic peacock-blue patch) widely tipped with white, and the buff wash on the fore-neck, breast, and the rest of the underparts much richer and darker. Both species have the same golden-vellow pectoral tufts, and in this respect differ from the allied forms A. longuemarii &c., which have the pectoral tufts sulphur-yellow or pale chromevellow. In A. carruthersi and A. angolensis the nape is sooty black, interrupting the metallic purple crown and mantle, which are confluent in A, longuemarii and the allied forms.

The female is much like that of A. longuemarii, the belly and under tail-coverts being sulphur-yellow.

[This Sun-bird was only met with at one place to the west of Lake Tanganyika, where a few individuals were seen all feeding on the same tree.—D. C.]

Anthothreptes hypodila (Jard.).

Nectarinia hypodilus Jard. Contr. Orn. p. 153 (1851).

Anthodiæta subcollaris Reichenb. Synops. Av. Scansoriæ, p. 293 (1854) [part., Fernando Po].

Anthothreptes hypodila Shelley, ii. p. 151 (1900) [part.].

Anthreptes collaris hypodilus Reich. iii. p. 443 (1905) [part.].

Nos. 5186, 5204, 5215, 5234. a-d. $\beta \circ 2$. Between Kasongo and Ponthierville, Upper Congo, 2000 ft., 9th-21st Feb.

Iris dark hazel; bill and feet black.

The type of this darker-breasted Collared Sun-bird was procured at Fernando Po by Mr. L. Fraser. From that island it ranges to Camaroon, Gaboon, and eastwards to the upper waters of the Congo, where four examples were procured by Mr. Carruthers. Both adult males and females are easily distinguished from A. zambesiana by the colour of the breast, which is olive-yellow, only the middle of the belly being of a brighter yellow.

Anthothreptes Zambesiana (Shelley).

Anthodiæta zambesiana Shelley, Monogr. Nect. ii. p. 343, pl. iii. fig. 3 (1876).

Anthothreptes hypodila Shelley, ii. p. 151 (1900) [part.]. No. 5006. a, \(\gamma\). S.W. Uganda, 4000 ft., 27th Sept. Iris dark hazel; bill and feet black.

An adult female of the Zambesi Collared Sun-bird was procured by Mr. Carruthers in South-west Uganda. I cannot agree with Captain Shelley (who is followed by Dr. Reichenow) in uniting this bright yellow-breasted species with the much darker-breasted A. hypodila. With a large series of both for comparison there is no difficulty in separating the two forms by their geographical distribution. The type of A. zambesiana was obtained at Shupanga, on the Zambesi, by Sir John Kirk, and there are typical specimens of this form in the British Museum from Lorenzo Marques, Mozambique, East Africa, Uganda, Wadelai, the Niger, Ashanti, and Sierra Leone.

It must, however, be noted that most of the male birds from the last-named locality have the yellow on the breast rather brighter than those from the east coast.

LANIARIUS POLIOCEPHALUS Lieht.

No. 5128. $a. \circ$. North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris orange; bill black; feet blue-grey.

This Grey-headed Bush-Shrike was shot whilst feeding its young.

The identification of the bird procured by Mr. Carruthers has obliged me to re-examine all the yellow-breasted forms of this section of the genus, often kept separate under the name of *Malaconotus*.

Of the yellow-breasted forms, I am able to recognise four or possibly five species, which may be distinguished as follows:—

- A. White patch in front of the eye; throat vellow.

 - b'. With the upper part of the breast rich cinnamon-brown
 - c'. With the upper part of the breast usually faintly washed with cinnamon......
 - d'. With the underparts entirely bright yellow.
- B. No white patch in front of the eyes; throat orange-yellow.....

 $L.\ approximans.$

L. hypopyrrhus.

L. poliocephalus. L. monteiri.

L. lagdeni.

(1) L. APPROXIMANS.

Archolestes approximans Cab. in v. d. Decken, Reisen Ost-Afr. iii, p. 27 (1869).

Malaconotus poliocephalus schoanus Neum. Orn. Monatsb. xi. p. 90 (1903).

Malaconotus olivaceus hypopyrrhus Reich. (nec Hartl.) ii. p. 602 (1903). Hab. Ranging from Southern Abyssinia southwards to the Pangani River.

Prof. Neumann has separated the Abyssinian bird from the East-African form (*L. approximans*), under the name *M. p. schoanus*; the difference between the two is entirely one of size, the Abyssinian bird being slightly larger.

L. approximans: wing 4.2-4.3 inches.

L. schoanus: wing 4.6-4.9 inches.

(2) L. hypopyrrhus.

Malaconotus hypopyrrhus Hartl. Syst. Verz. Mus. Bremen, p. 61 (1844); Neumann, J. f. O. 1906, p. 155.

Laniarius starki W. L. Sclater, Ibis, 1901, p. 152.

Malaconotus starki Shelley, Ibis, 1901, p. 170; Sharpe, Hand-l. iv. p. 289 (1903).

Malaconotus olivaceus starki Reich. ii. p. 603 (1903).

Hab. Ranging from the Pangani River to Cape Colony.

According to Prof. Neumann, who has examined the type, *M. hypopyrrhus* Hartl. is undoubtedly an example of the South-African form.

(3) L. POLIOCEPHALUS.

Lanius poliocephalus Licht. Verz. Doubl. p. 45 (1823).

Malaconotus blanchoti Steph. in Shaw's Gen. Zool. xiii. pt. ii. p. 161 (1825).

Malaconotus olivaceus Reich. (nec Shaw) ii. p. 601 (1903).

Malaconotus poliocephalus Sharpe, Hand-l. iv. p. 289 (1903).

Hab. Ranging from Senegambia to Camaroon and apparently to the north-west of Lake Tanganyika, as Mr. Carruthers's specimen is indistinguishable from birds from the Gambia.

(4) L. MONTEIRI.

Laniarius monteiri Sharpe, P.Z.S. 1890, p. 148, pl. xiii. fig. 1.

Malaconotus catharoxanthus Neumann, J. f. O. 1899, p. 391; id. Orn. Monatsb. xi. p. 90 (1903).

Hab. Ranging from Southern Abyssinia, through Niam-Niam to Angola, and, according to Prof. Neumann, westwards to Lake Mweru.

It seems probable that the type of L, monteiri is a somewhat abnormal specimen and that the unusual development of white on the lores, round the eye, and on the sides of the neck is due to partial albinism. The type specimen, described by Dr. Sharpe, was procured on the Rio Dande in North Angola; and there is also a specimen in the British Museum from Caconda, a little further to the south. This second specimen has the white confined to the lores, as is usual among birds of this group, but in other respects it is perfeetly similar to the type. Two specimens from Abyssinia and one from Niam-Niam, which have been identified by Professor Neumann as examples of his M. catharoxanthus, are likewise perfectly similar, and the breast is of precisely the same shade of yellow. The Niam-Niam specimen being in freshly moulted plumage is naturally altogether brighter than the more or less worn examples from Abvssinia and Angola.

The fact is that *L. monteiri* Sharpe is barely distinguishable from *L. poliocephalus*, for in some examples from Senegambia the cinnamon wash on the breast is absent; while in the bird from Caconda, as well as in those from Abyssinia, there are distinct traces of cinnamon on the sides of the breast.

(5) L. LAGDENI.

Laniarius lagdeni Sharpe, P. Z. S. 1884, p. 54, pl. v.

Hab. Interior of the Gold Coast, Ruwenzori, and the Mfumbiro Volcanoes.

The type of this rare Bush-Shrike remained unique until a second specimen was procured by Mr. Gerald Legge, on Ruwenzori, at an altitude of 9000 feet. Subsequently a third example, from the Mfumbiro Volcanoes, was sent to the Tring Museum by Herr Grauer.

LANIARIUS MAJOR Hartl.

Laniarius major Reich. ii. p. 580 (1903).

No. 5112. a. \(\gamma\). North-west of Lake Tanganyika, 2800 ft., 29th Dec.

Iris reddish-brown; bill black; feet grey.

This example of the Greater Bush-Shrike has two of the innermost secondary quills margined externally with white; the outer pair of tail-feathers are very narrowly bordered all round and narrowly tipped with white.

LANIARIUS DOHERTYI Rothsch.

Laniarius dohertyi Rothsch. Bull. B. O. C. xi. p. 52 (1901). No. 5045. a. 3. Mfumbiro Volcanoes, 7000 ft., 24th Nov.

Iris dark hazel; bill black; feet grey.

No additional specimens of this beautiful Bush-Shrike had been procured since the species was first observed on the Mau Escarpment by the late Mr. W. Doherty. Its discovery on the Mfumbiro Volcanoes is therefore of great interest. Mr. Carruthers tells me that he found it in very thick undergrowth and that it had a fine flute-like note.

Dryoscopus Affinis (G. R Gray).

Dryoscopus affinis Reich. ii. p. 590 (1903).

No. 5203. a. d. Ponthierville, Upper Congo, 2000 ft., 18th Feb.

Iris bright orange; bill black; feet grey.

The male of this Puff-back Shrike is similar to the specimen in the British Museum which is said to be the type of Hapalophus affinis G. R. Gray, and to have come from Zanzibar. It shews slight traces of white at the base of some of the shorter scapulars. Dr. Reichenow describes this species as having the scapulars mixed with white, but this is certainly not always the case among East-African birds, and it would seem as though the absence or presence of white was a variable character of secondary importance. The type of D. affinis does not appear to differ from the West-African form distinguished as D. senegalensis (Hartl.) by Reichenow. Possibly the females of this latter form

may, as a whole, have the lower back and rump somewhat greyer than the East-African birds, but in one female from Zanzibar these parts are quite as grey as in the western form. The birds available for examination from the East-African coast are, however, too few to enable one to draw definite conclusions.

DRYOSCOPUS HAMATUS Hartl.

Dryoscopus cubla hamatus Reich. ii. p. 594 (1903).

No. 5127. a. d. North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris orange; bill black; feet grey.

A male of the Lesser Puff-back Shrike apparently belongs to this East-African form. It is distinguished from D. cubla on account of the female having the lower back and rump pure grey, not washed with olive-brown. Of three females of typical D. cubla from Swaziland in the British Museum, two have the lower back slightly washed with olive-brown, but the third shews hardly a trace of that colour and is barely separable from females of D. hamatus. On the whole, however, there is a distinct difference to be seen in series of these birds from South and East Africa.

TELEPHONUS ANCHIETE Boc.

Pomatorhynchus anchietæ Reich. ii. p. 553 (1903).

Pomatorhynchus reichenowi (Neum.); Reich. ii. p. 552 (1903).

No. 5136. a. \circ . North-west of Lake Tanganyika, 4000 ft., 6th Jan.

Iris mauve; bill black; feet grey.

The female of this Bush-Shrike procured by Mr. Carruthers has the upper tail-coverts black, fringed with sandy-brown. In this respect it resembles a female example from Nyasaland, but two others from the same country have the upper tail-coverts sandy-brown, blackish only towards the base of the feathers. This character is therefore unimportant, and cannot be used in separating T. anchietæ from T. reichenowi Neum. The British Museum possesses typical examples of T. reichenowi from Lamu, Dar-es-Salaam, and Pangani, and

a series of T. anchiet from Nyasaland. I am unable to separate them, as even in size T. reichenowi (wing 69-75 mm.) does not appear to differ from typical T. anchiet (wing 73-77 mm.).

NICATOR CHLORIS (Less.).

Nicator chloris Reich. ii. p. 554 (1903).

Nos. 5218, 5221. a, b. $3 \circ .$ Ponthierville, Upper Congo, 2000 ft., 19th Feb.

Iris dark brown; bill black; feet grey.

Several examples of this Spot-winged Bush-Shrike were also procured by the Ruwenzori Expedition at Fort Beni and in the Mpanga Forest near Fort Portal.

Ркіміа музтасеа (Кüрр.).

Prinia mystacea Reich. iii. p. 590 (1905).

No. 5039. a. β . Mfumbiro Volcanoes, 5000 ft., 20th Nov.

No. 5101. b. \circ . North of Lake Tanganyika, 3000 ft., 21st Dec.

No. 5153. c. Imm. East of Kasongo, Upper Congo, 2500 ft., 9th Jan.

Iris pale brown; bill black; feet pale brown.

A large series of the Tawny-flanked Grass-Warbler was also procured by the Ruwenzori Expedition.

HYLIA PRASINA (Cass.).

Hylia prasina Reich, iii. p. 622 (1905).

Nos. 5205, 5206, 5233, 5246, 5247. a-e. \circlearrowleft . Ponthier-ville, Upper Congo, 2000 ft., 18th–22nd Feb.

Iris dark hazel; bill black; feet olive-green.

The examples of this Tree-Warbler procured by Mr. Carruthers at Ponthierville, Upper Congo, and a number of specimens collected by the Ruwenzori Expedition in the Semliki Valley, Eastern Congo Forest, and Mpanga Forest, Fort Portal, display many interesting points which do not appear to have been recorded:—

(1) The male is much larger than the female, the measurements of the wing varying from 2.6 to 2.75 inches, as compared with 2.25 to 2.4 in the female.

- (2) The female generally has the plumage of the crown darker and less olive than that of the male.
- (3) Very young male and female specimens have the entire top of the head, nape, and sides of the head dark grey, the crown and nape being washed with olive; the superciliary stripe, continued along the side of the occiput, pale grey, and the throat and fore-neck whitish washed with the same grey tint. The male bird from Ponthierville (No. 5206), which is rather older than the female, has the bill black, becoming paler towards the tip, and the feet olive-green. The female from Efulen, Camaroon, which has the flight-feathers still in quill, and is little more than a nestling, has the entire bill of a pale yellowish horn-colour, with the exception of a dark stripe at the tip of both mandibles, and the legs of a pale yellowish horn-colour.
- (4) In a somewhat older male bird from Ponthierville (No. 5233) the crown is olive, brighter than that of the adult, the superciliary stripe is of a pale somewhat indefinite greenish-white; the cheeks are much the same dusky colour as the lores and the streak through the eyes; and the underparts are rather dull greyish-olive, darker and more olive than those of the adult.
- (5) Adult males killed when breeding in October have the pale yellowish-white eyebrow-stripe and the olive of the cheek distinctly brighter than the male birds killed by Mr. Carruthers in February.

[This bird haunts the tops of the highest trees in the forest.—D. C.]

EREMOMELA MENTALIS Reichenow.

Eremomela mentalis Reich. iii. p. 639 (1905).

Eremomela congensis Reich, iii, p. 639 (1905).

No. 5140. a. d. East of Kasongal, Upper Congo, 3000 ft., 7th Jan.

Iris pale yellow; bill black; feet pale brown.

The bird described by Dr. Reichenow as *E. congensis* and believed by him to occur together with *E. mentalis* at Leopoldville is almost certainly an immature example of the

latter species. In the British Museum there is a typical example of the so-called *E. congensis* procured at Leopoldville by Bohndorff. Similar changes of plumage occur in the allied species *E. scotops* Sundev., the back in the adult being grey, while in what appear to be younger birds it is strongly washed with olive.

EREMOMELA BADICEPS (Fras.).

Eremomela badiceps Reich, iii. p. 641 (1905).

No. 5228. a. \Diamond imm. Ponthierville, Upper Congo, 2000 ft., 20th Feb.

Iris dark hazel; bill black; feet pale brown.

This immature example of the Chestnut-headed Bush-Warbler is in an interesting stage of plumage. It has the top of the head dark brown, and the back dark brownish-grey, washed with olive. The chin, throat, a patch on the crop, and the belly are pale yellow, while the black band across the fore-neck is fairly well defined.

Phylloscopus sibilatrix (Bechst.).

Phylloscopus sibilator Reich. iii. p. 645 (1905).

No. 5219. a. β . Ponthierville, Upper Congo, 2000 ft., 19th Feb.

Iris, bill, and feet dark brown.

This example of the Wood-Wren is in full moult; the new quills and tail-feathers are almost complete,

Phylloscopus trochilus (Linu.).

Phylloscopus trochilus Reich. iii. p. 644 (1905).

No. 5086. $a. \circ$. North of Lake Tanganyika, 3000 ft., 16th Dec.

Iris dark brown; bill and feet brown.

This Willow-Wren has the plumage much worn and is commencing to moult; the sixth primary-quill in the right wing being partially grown, while in the left wing the complete set of old feathers is still retained.

SCHENICOLA APICALIS (Cab.).

Schanicola apicalis Reich. iii. p. 577 (1905).

No. 5008. a. β vix ad. Mbarara, South-west Uganda, 4000 ft., 27th Sept.

No. 5078. b. d. Lake Kivu, 4900 ft., 15th Dec.

Iris dark hazel; upper mandible black, lower mandible grey; feet pale brown.

The specimen of the Fan-tailed Reed-Warbler from Mbarara has the colour of the back of a rather darker shade of brown than is usual. It is not a fully adult bird, for the yellowish-white feathers down the middle of the breast and belly are evidently remains of the immature plumage. There is a similar dark-backed specimen in the British Museum from the Nyika Plateau (6000 feet), procured by Mr. A. Whyte in June 1896.

CISTICOLA PICTIPENNIS Madarász.

Cisticola pictipennis Reich. iii. p. 564 (1905).

No. 5204, 5025. a, b. $\beta \circ A$. Mfumbiro Volcanoes, 5000 ft., 17th Nov.

Iris brown; upper mandible black, lower mandible pale yellow; feet pale yellow.

I am a little doubtful whether I am right in referring these Fan-tailed Warblers to C. pictipennis. Both birds have the forehead greuish-brown shading into dull chestnut-brown between the eyes, instead of being uniform chestnut to the base of the culmen, as is the case in all specimens of C. cinerascens that I have examined. In both specimens the tail is imperfect, being in full moult, and some of the outer feathers only are present; these are dark brownish-grey with a very wide (about 0.4 inch) subterminal black band and a wide white or whitish-buff tip. In C. cinerascens the tail is much browner and the black subterminal spots do not exceed 0.3 of an inch in width in the most strongly marked specimens. As regards the markings of the tail, the birds from Mfumbiro closely resemble several examples in the British Museum from Nyasalaud which have been referred to C. cinerascens; but they differ from them in the brown coloration of the forehead.

There is a fine freshly moulted example of *C. pictipennis* from Nairobi in Mr. F. J. Jackson's collection.

 δ : wing 2·15 inches (= 54 mm.).

 \circ : ,, 2·1 inches (= 53 mm.).

CISTICOLA TERRESTRIS (A. Smith).

Cisticola terrestris Reich. iii. p. 558 (1905).

No. 5097. a. β . North of Lake Tanganyika, 3000 ft., 19th Dec.

Iris dark hazel; bill black; feet very pale brown.

The Wren Fan-tail Warbler is widely distributed, ranging from Southern Abyssinia and East Africa to South Africa and westwards into Damaraland.

I may here remark that in Dr. Reichenow's work (op. cit. p. 559) we find under C. brunnescens "Aroharlaise IV. (Pease)." This is of course a mistake, for the bird which Sir Alfred Pease procured at Aroharlaise in April was C. lavendulæ (cf. Grant & Reid, 'Ibis,' 1901, p. 650), which he mentions immediately below. There we find the locality given as "Aroharlaise IV. (Reid)"!

CISTICOLA RUFA (Fraser).

Cisticola rufa Reich. iii. p. 567 (1905).

No. 5007. a. d. South-west Uganda, 4000 ft., 27th Sept.

Nos. 5083, 5096. $b, c. \beta$. North of Lake Tanganyika, 3000 ft., 16th & 19th Dec.

Nos. 5133, 5134. d, e. \circ et \circ imm. North-west of Lake Tanganyika, 4000 ft., 4th Jan.

Nos. 5142, 5143, 5158. f–h. \circlearrowleft . East of Kasongo, Upper Congo, 2000–3000 ft., 7th & 20th Jan.

Iris pale brown; upper mandible black, lower mandible pale brown; feet yellow.

The young male (No. 5134) procured on the 4th of January is almost certainly an immature example of Fraser's Fan-tail Warbler. It is quite a young bird, with the chin, throat, and breast in the pale yellowish-white plumage of immaturity. Its tail, however, is somewhat longer than that of the adult male and measures 1.7 inches. In the adult the tail varies from 1.5 to 1.6 inches.

CISTICOLA RUFOPILEATA Reichenow.

Cisticola rufopileata Reich. iii. p. 561 (1905).

Nos. 5171, 5184, 5188, 5201, 5209. *a-e.* 3. Between

Kasongo and Ponthierville, Upper Congo, 2000 ft., 6th-18th Feb.

Iris pale brown; bill black; feet pale brown.

[This Fan-tail Warbler was only found in the clearings in the forest on the banks of the Upper Congo. It haunts high trees as well as the long grass and has a peculiar note, quite different to that of any other species of *Cisticola* that I have heard.—D. C.]

CISTICOLA EMINI.

Cisticola rufopileata emini Reich. iii. p. 562 (1905).

No. 5146. J. West of Baraka, North-west Tanganyika, 2500 ft., 8th Jan.

Iris pale brown; bill black; feet pale brown.

I have referred this specimen with some doubt to C. emini. It agrees pretty closely with examples collected by Mr. F. J. Jackson at Entebbe, Kamassia, and Eldoma Ravine, but has the flight-feathers conspicuously margined on the outer web with rufous-chestnut and the sides and flanks dull olivegrey. Three of Mr. Jackson's specimens of Emin's Fantailed Warbler, killed in August and September, are in worn plumage, the rufous margins of the wing-feathers being worn and faded; a fourth specimen from Entebbe killed in April is in less worn plumage, but though the outer webs of the quills are margined with rufous the colour is not so bright as in the Baraka bird. In all Mr. Jackson's specimens of C. emini the breast and belly are buff, paler down the middle and darker and greyer on the sides and flanks. The wing measures 2.8 inches (=71 mm.); tail 2.2: tarsus 0.9.

CISTICOLA NUCHALIS.

Cisticola robusta nuchalis Reich. iii. p. 555 (1905).

No. 5018. α . δ . North of Lake Albert Edward, 3000 ft., 12th Oct.

Nos. 5029, 5036, 5037, 5040, 5041. *b-f*. Mfumbiro Volcanoes, 5000 ft., 18th–20th Nov.

Iris pale brown; bill black; feet pale brown.

Males: wing 2.5-2.6 inches.

Females: wing 2·2-2·3 inches.

[One example (No. 5018) of this Fan-tail Grass-Warbler was met with in a very dry and barren district, but the remainder were procured among long grass and in a wet country.—D. C.]

CISTICOLA LUGUBRIS Rüpp.

Cisticola lugubris Reich. iii. p. 552 (1905).

No. 5015. a. 3. North end of Lake Albert Edward, 3000 ft., 12th Oct.

Iris pale brown; upper mandible black, lower mandible

whitish; feet very pale brown.

This example of the Buff-fronted Fan-tailed Warbler agrees closely with an example shot near Durban, Natal, and with one from Shonga, Niger River, in the British Museum. In all three there are no traces of black spots on the upper tail-coverts—a character commonly found in birds of this species. The wing measures 2·42 inches.

Melocichla mentalis (Fraser).

Melocichta mentalis Grant, Ibis, 1907, p. 594.

No. 5085. a. J. North of Lake Tanganyika, 3000 ft., 16th Dec.

No. 5129. b. d. North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris yellow; upper mandible black, lower mandible pale grey; feet bluish-grey.

Examples from Tanganyika of this large Grass-Warbler belong to the typical dark-backed form.

SAXICOLA FALKENSTEINI Cab.

Phonicurus familiaris falkensteini Reich. iii. p. 783 (1905).

No. 5054. a. d. Mfumbiro Volcanoes, 5000 ft., 25th

No. 5082. b. δ . North of Lake Tanganyika, 3000 ft., 16th Dec.

Iris dark brown; bill and feet black.

Myrmecocichla nigra (Vieill.).

Myrmecocichla nigra Finsch, Notes Leyd. Mus. xxii. p. 158 (1900); Reich. iii. p. 706 (1905) [part.].

Nos. 5159, 5161. *a*, *b*. *d*. East of Kasongo, Upper Congo, 2000 ft., 20th Jan.

Iris dark hazel; bill and feet black.

Dr. Reichenow has united *M. arnotti* (Tristr.) with this species, but the two forms appear to be perfectly distinct and to occupy different geographical ranges. In *M. nigra* the *adult male* has the entire plumage black, with the exception of the lesser and median wing-coverts, which are pure white. The *adult female* is entirely dark brown or, in worn examples, rusty brown.

Hab. From the Congo to Benguella, eastwards to Lake Albert, Unyoro, and Uganda and southwards to Kasongo on the Upper Congo.

The synonymy of Myrmecocichla arnotti (Tristr.) should stand as follows:—

Saxicola arnotti Tristram, Ibis, 1869, p. 206, pl. vi. [immature male]; Finsch, Notes Leyd. Mus. xxii. p. 159 (1900).

Saxicola shelleyi Sharpe, ed. Layard, Birds S. Afr. p. 246 (1876) [adult male and female].

Myrmecocichla leucolæma Reich. Orn. Centr. 1880, p. 181 [adult female].

Myrmecocichla collaris Reich. J. f. O. 1882, p. 212 [immature male].

Adult male. Similar to M. nigra, but the erown of the head is pure white, and the greater (as well as the lesser and median) wing-coverts are white, tipped with black.

Adult female. Like the male, but differs in having the crown and mantle black washed with brownish; the chin, throat, and middle of the chest white, and most of the feathers more or less fringed with smoky black.

Hab. From Lake Mweru and Ugogo southwards along the Zambesi to Zoutpansberg and Griqualand East.

PRATINCOLA RUBICOLA (Linn.).

Pratincola rubicola Reich. iii. p. 732 (1905).

No. 5042. a. \(\varphi\). Mfumbiro Volcanoes, 5000 ft., 21st Nov. Iris dark hazel; bill and feet black.

NEOCOSSYPHUS PRÆPECTORALIS Jackson.

Neocossyphus præpectoralis Jackson, Bull. B. O. C. xvi. p. 90 (1906).

No. 5194. a. \(\gamma\). Below Kasongo, Upper Congo, 2000 ft., 10th Feb.

Iris dark hazel; bill black; feet pale flesh-colour.

The specimen procured by Mr. Carruthers near Kasongo differs somewhat from a typical female example of N. prapectoralis, obtained by the Ruwenzori Expedition in the Mpanga Forest, in being somewhat smaller (wing 3.95 inches, tail 3.35; as compared with wing 4.2, tail 3.5) and in having the white tips of the outer tail-feathers shorter. As in N. prapectoralis, the white at the end of the outer pair of tail-feathers is entirely confined to the terminal part of the inner web and tip of the feather. In the present specimen the white portion of the inner web measures 0.9 inch, while in the typical female from the Mpanga Forest it measures 1.4 inch and in the type specimen—a male from Toro—it measures 1.45. The present specimen is in much worn plumage, but may represent a distinct and rather smaller form of N. prapectoralis.

Cichladusa arcuata Peters.

Cichladusa arquata Reich. iii. p. 765 (1905).

Nos. 5147, 5154. *a*, *b*. & . East of Kasongo, Upper Congo, 2000–2500 ft., 8th & 11th Jan.

Iris very pale yellow; bill black; feet grey.

Both examples of the Morning Warbler appear to be a trifle smaller than birds from the Zambesi and Nyasaland, but one specimen in the British Museum from the latter locality has the same wing-measurement, 3.4 inches.

TURDINUS ATRICEPS Sharpe.

Turdinus atriceps Sharpe, Bull. B. O. C. xiii. p. 10 (1902); Reich. iii. p. 740 (1905).

No. 5048. α . \circ . Mfumbiro Volcanoes, 7000 ft., 24th Nov.

Iris dark hazel; upper mandible black, lower mandible grey; feet grey.

The female procured on Mfumbiro is in somewhat worn and faded plumage. I have compared it with a large series of twenty specimens (including the type) from Ruwenzori, killed in January, February, and March, and it agrees very closely with a female procured on the 9th of January. With the exception of the latter specimen, all the Ruwenzori birds are in rather fresher and brighter plumage.

[This species was found on the volcanoes, where the vegetation was similar to that met with on Ruwenzori at 8000 ft.—D. C.]

CRATEROPUS TANGANJICÆ Reichenow.

Crateropus tanganjicæ Reich. iii. p. 663 (1905).

No. 5110. a. \circ . North-west of Lake Tanganyika, 2800 ft., 29th Dec.

Iris orange; bill black; feet grey.

CRATEROPUS CARRUTHERSI Grant.

Crateropus tanganjicæ Shelley (nec Reich.), Ibis, 1901, pp. 165, 170.

Crateropus carruthersi Grant, Bull. B. O. C. xix. p. 106 (1907).

No. 5150. a. 3. East of Kasongo, Upper Congo, 2500 ft., 8th Jan. (Type of the species.)

Iris orange; bill black; feet brown.

This Babbling-Thrush is most nearly allied to *C. tangan-jicæ* Reich., but the feathers of the nape and upper mantle are uniform reddish-brown without dark middles, there are no distinct narrow dusky cross-bars on the feathers of the back, and only the chin is black. In *C. tanganjicæ* the black extends over the whole throat, and only the sharppointed tips of the feathers are white. The wing measures 4·1 inches, the tail 4·3, and the tarsus 1·4.

There is a second example of this species in the British Museum. It is also a male and was sent from Mambwe, SER. IX.—VOL. II.

immediately to the south of Lake Tanganyika, by Sir Alfred Sharpe.

CRATEROPUS HARTLAUBI Boeage.

Crateropus hartlaubi Reich. iii. p. 663 (1905).

Nos. 5108, 5109, 5117. a-c. 3 \circ . North-west of Lake Tanganyika, 2800 ft., 29th Jan. & 18th Feb.

Iris red; bill black; feet grey.

The examples of Hartlaub's Babbling-Thrush are in nearly freshly moulted plumage, the new feathers of the head and mantle being distinctly margined with greyish-white, while the shaft-stripes to the feathers of the throat, forc-neck, and breast are conspicuous and of a dark brown.

Ixonotus Guttatus Verr.

Ixonotus guttatus Reich, iii, p. 416 (1904).

Nos. 5197, 5216, 5217. a-c. δ . Near Ponthierville, Upper Cougo, 2000 ft.

Iris dark hazel; upper mandible black, lower mandible

grey; feet blue-grey.

A male of this Bulbul was procured by the Ruwenzori Expedition at Mawambi, in the Eastern Congo forest. So far as I am aware, this species has hitherto only been recorded from West Africa, its known range extending from Senegambia to Loango.

[This Bulbul is always to be found in large flocks in the

forest.—D. C.]

Xenocichla leucolæma Sharpe.

Xenocichla leucolæma Sharpe, Bull. B. O. C. xiii. p. 10 (1902).

Phyllastrephus albigularis Reich. iii. p. 400 (1904) [part.].

Bleda albigularis Sharpe, Ibis, 1907; p. 459 (nec ex Nyasaland = X. flavostriata Sharpe).

No. 5196. a. δ . Below Kasongo, Upper Congo, 2000 ft., 10th Feb.

Iris pale brown; upper mandible black, lower mandible grey.

The male specimen from the River Ja, Camaroon, referred by Dr. Sharpe (op. cit.) to Xenocichla albigularis Sharpe, from Fantee, is certainly identical with the type of X. leucolæma from Toro. Dr. Reichenow unites X. leucolæma with X. albigularis, and states that the great difference in size is due to sex. The type of X. albigularis from Fantee is, however, so very small that I think this conclusion requires further confirmation.

X. albigularis Sharpe.			X. leucolæma Sharpe.			
	Wing.	Tail.			Wing.	Tail.
	in.	in.			in.	
Type:			Type:	ð	3.4	3.0 Toro.
(sex unknown).	2.7	2.5 Fantee.		ð	3.1	2.9 Fort Beni
				ď	3.35	2.9 Kasongo.
				3	3.4	3·1 Camaroon.

Andropadus Gracilirostris Strickl.

Andropadus gracilirostris Reich. iii. p. 411 (1904).

No. 5248. a. 3. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris reddish-brown; bill and feet black.

A fine male of this Bulbul in freshly moulted plumage.

Andropadus gracilis Cab.

Andropadus gracilis Reich. ni. p. 414 (1904).

Ardropadus (sic) kayerensis Reich. Orn. Monatsb. xvi. no. 3, p. 47 (1908) [Immature].

Nos. 5182, 5230, 5235, 5236. a-d. β ? . Near Ponthier-ville, Upper Congo, 2000 ft., 8th–21st Feb.

Iris hazel; bill black; feet dark grey or olive.

This species may be distinguished from the allied A. curvirostris Cass. by its shorter black bill, generally greyer throat contrasting with the breast, somewhat shorter wing, and considerably shorter tail.

·	Wing.	Tail.
	in.	in.
A. gracilis, &	2.8 -3.0	2.45-2.6
φ	2.7 - 2.9	2.4 - 2.5
A. curvirostris, &	3.0 -3.2	2.7 -3.0
φ	2:95-3:15	2.6 -3.0
		v 9

In A. curvirostris the bill is not only considerably longer, but paler (in dry skins at least) towards the extremity.

Dr. Reichenow has recently described the immature example of A. gracilis under the above-given name.

Andropadus Latirostris Strickl.

Andropadus latirostris Reich, iii, p. 414 (1904).

Andropadus latirostris eugenius, Reich. iii. p. 415 (1904).

No. 5131. a. β . North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris dark hazel; bill black; feet yellow or dark grey.

Dr. Reichenow has separated East-African examples of A. latirostris Strickl. under the name of A. eugenius, but a large series of specimens collected by the Ruwenzori Expedition shews that the differences that he mentions cannot be relied on. A series of birds from Fernando Podoes not differ from East-African examples.

Criniger Calurus Cass.

Criniger calurus Reich. iii. p. 382 (1904).

Nos. 5176, 5177, 5191, 5192, 5195. a-e. $3 \circ .$ Below Kasongo, Upper Congo, 2000 ft., 7th–10th Feb.

Iris dark red; upper mandible black, lower mandible grey; feet grey.

The occurrence of this Bulbul at Kasongo is worthy of note.

CRINIGER ICTERINA Bonap.

Phyllastrephus icterinus Reich. iii. p. 402 (1904).

No. 5175. &. Below Kasongo, Upper Congo, 2000 ft., 7th Feb.

Iris hazel; upper mandible black, lower mandible grey.

Campophaga Nigra Vieill.

Campephaga nigra Reich. ii. p. 518 (1903).

No. 5004. a. \diamondsuit . South-west Uganda, 4000 ft., 26th Sept.

Iris dark hazel; bill and feet black.

A freshly moulted female example of the Black Cuckoo-

Shrike has the crown and entire back unusually grey, with only a faint olive wash on some of the feathers.

STIZORHINA VULPINA Reichenow.

Stizorhina vulpina Reich. ii. p. 467 (1903).

No. 5208. a. ♂. Ponthierville, Upper Congo, 2000 ft., 18th Feb.

Iris dark brown; bill black; feet brown.

STIZORHINA FRASERI (Strickl.).

Stizorhina fraseri Reich. ii. p. 466 (1903).

No. 5174. a. J. Below Kasongo, Upper Congo, 2000 ft., 7th Feb.

Iris dark hazel; bill black; feet brown.

Besides having the middle pair of tail-feathers more olivebrown and much less rufous than in S. vulpina Reich., the present species has the inner web of the fourth pair of tail-feathers black almost to the tip and that of the fifth (penultimate) pair black on the basal half. In S. vulpina the fourth pair of tail-feathers have only the basal portion of the inner web next to the shaft blackish, while the two outer pairs are uniform pale chestnut-red. It will thus be seen that the ranges of the West-African S. fraseri and of the East Central African S. vulpina overlap on the Upper Congo.

Whether the genus Stizorhina is really distinct from Neocossyphus requires careful consideration, S. finschi (Sharpe) and N. præpectoralis Sharpe being almost alike in plumage and differing chiefly in the shape of the bill, which is stouter and more flattened in the former.

Bradyornis murinus Finsch & Hartl.

Bradornis pallidus murinus Reich. ii. p. 436 (1903).

Nos. 5094, 5095. $a, b. \ \ \,$? . North of Lake Tanganyika, 3000 ft., 19th Dec.

No. 5119. c. δ . North-west of Lake Tanganyika, 3000 ft., 2nd Jan.

Iris dark hazel; bill and feet black.

One male (5119) is rather larger and has the back somewhat greyer than the other male (5094).

The measurements are as follows:-

	Wing.	Tail.
	in.	in.
♂ (5119)	3.9	3.2
ਰ (5094)	3.75	2.9
♀ (5095)	3.55	2.8

BIAS MUSICUS Vieill.

Bias musicus Reich. ii. p. 469 (1903).

No. 5172. a. \diamondsuit . Below Kasongo, Upper Congo, 2000 ft., 6th Feb.

Nos. 5213, 5225, 5226. b-d. \mathcal{E} ? Ponthierville, Upper Congo, 2000 ft., 19th & 20th Feb.

- J. Iris yellow; bill black; feet yellow.
- $\$. Iris yellow or pale yellow; bill black; feet pale grey or pale yellow.

[The Black-and-White Flycatcher haunts the tree-tops in thick forest, and sings on the wing like a Tree-Pipit.—D. C.]

Mr. Carruthers's remarks about the musical powers of this species are opposed to the observations of Dr. G. A. Fischer [cf. Stark & Scl. B. S. Afr. ii. p. 251 (1901)].

Diaphorophyia castanea (Fraser).

Diaphorophyia castanea Reich, ii. p. 490 (1903).

No. 5166, 5181, 5190. a-c. δ . Below Kasongo, Upper Congo, 2000 ft., 4th–9th Feb.

Nos. 5227. d. \circ imm. Ponthierville, Upper Congo, 2000 ft., 20th Feb.

Iris dark red or hazel; eyelid dark red; bill black; feet dark red.

Batis Molitor (Hahn & Küst.).

Batis molitor Reich. ii. p. 482 (1903).

Nos. 5122, 5123. a, b. d \circ . North-west of Lake Tanganyika, 3000 ft., 2nd Jan.

Iris greenish-yellow; bill and feet black.

Mr. Carruthers notes that these White-flanked Flycatchers were evidently a pair, as they were shot in company with one another.

The East-African examples of this species have been separated under the name of *B. puella* Reich., chiefly on account of the darker chestnut-colour of the throat-patch and breast-band in the female. The female specimen from Tanganyika resembles typical examples of the somewhat paler *B. molitor* from South Africa. The males shew no constant difference in plumage, the extent of the white eyebrow-stripe being a purely individual character.

Chloropeta Massaica Fisch. & Reichenow.

Chloropeta natalensis massaica Reich. ii. p. 465 (1903).

Chloropeta massaica Grant, Bull. B. O. C. xix. p. 32 (1906).

No. 5059. a. d. Lake Kivu, 4900 ft., 30th Nov.

The Masai Yellow Flycatcher has the iris dark hazel, the upper mandible black, the lower mandible brown, and the feet black.

Parisoma Plumbeum (Hartl.).

Parisoma plumbeum Reich. iii. p. 521 (1905).

No. 5240. a. φ imm. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris dark hazel; bill brown; feet dark grey.

Apparently an immature female of Hartlaub's Tit-Warbler. It differs from the adult in having the upperparts washed with brownish; the wing-coverts, scapulars, and innermost secondaries rather widely margined with pale rufous-buff; the underparts, with the exception of the middle of the belly, which is whitish, strongly washed with pale rufous; the vent and under tail-coverts clear pale rufous, and the penultimate pair of tail-feathers with the terminal two-thirds white.

P. orientale Reich. & Neum., from Kibuesi, is a closelyallied form, but is easily distinguished by having the under tail-coverts pure white instead of buff or pale rufous.

TARSIGER RUWENZORII Grant.

Tarsiger ruwenzorii Grant, Bull. B. O. C. xix. p. 33 (1906). Tarsiger eurydesmus Reich. Orn. Monatsb. xvi. no. 3, p. 48 (1908).

No. 5050. a. d. Mfumbiro Volcanoes, 7000 ft., 24th Nov. Iris dark brown; bill black; feet dark brown.

This species is most nearly allied to *T. johnstoni* (Shelley), which it resembles in having the outer webs of the secondary quills margined with olive; but it is easily distinguished by the conspicuous orange-yellow rump and upper tail-coverts and by having the yellow on the second pair of tail-feathers confined to the basal half of the outer web, and the outer pairs widely tipped with black, about 0.7 inch wide.

A large series of this handsome Bush-Robin was procured by the Ruwenzori Expedition, and the male obtained by Mr. Carruthers differs in no way from the type specimen. The male has the wing 3.2 inches, tail 2.7, tarsus 1.0; the female, wing 2.9-3.0, tail 2.4, tarsus 0.95.

Dr. Reichenow has recently re-described this species under the above-given name.

Muscicapa Brevicauda Grant.

Muscicapa lugens Shelley (nec Hartl.), Ibis, 1890, p. 158.
Muscicapa brevicauda Grant, Bull. B. O. C. xix. p. 107 (1907).

No. 5232. $a.\ \circ$. Upper Congo, 2000 ft., 21st Feb. (Type of the species.)

Iris dark hazel; upper mandible black, lower mandible grey; feet grey.

This Grey Flycatcher is very similar to *M. cærulescens* (Hartl.), but is easily recognised by its smaller size and very much shorter tail. From *M. lugens* (Hartl.), which it resembles in having the chest and breast darker grey, it is distinguished by possessing a white band extending from the lores over the eye and white under wing-coverts. Wing 2.65 inches; tail 1.8; tarsus 0.6.

There is a second example of this species in the British Museum, which was procured at Yambuya, on the Aruwimi River, Upper Congo, by the late Mr. J. S. Jameson, and was incorrectly identified with *M. lugens* (vide supra).

HIRUNDO ANGOLENSIS Bocage.

Hirundo angolensis Reich. ii. p. 409 (1903).

Nos. 5155, 5156. a, b. [\eth] \circ . East of Kasongo, Upper Congo, 2300 ft., 17th Jan.

Iris dark hazel; bill and feet black.

HIRUNDO MONTEIRI Hartl.

Hirundo monteiri Reich, ii. p. 416 (1903).

No. 5141. a. d. East of Kasongo, Upper Congo, 3000 ft., 7th Jan.

Iris dark brown; bill black; feet brown.

CAMPOTHERA PERMISTA Reich.

Dendromus permistus (Reich.) ii. p. 170 (1902).

No. 5224. a. J. Ponthierville, Upper Congo, 2000 ft., 20th Feb.

Iris dark hazel; upper mandible black, lower mandible olive-green.

DENDROPICUS LAFRESNAYI Malh.

Dendropicos lafresnayi Reich. ii. p. 195 (1902) [part.].

Dendropicus lafresnayi Grant, Ibis, 1905, p. 211.

No. 5074. a. [♂]. Island of Kidjwe, Lake Kivu, 4900 ft., 10th Dec.

Iris dark red; bill black; feet dark olive.

A freshly-moulted example of Lafresnay's Woodpecker has the upperparts dull golden-olive and the underparts washed with greenish-yellow.

MESOPICUS XANTHOLOPHUS (Hargitt).

Mesopicos xantholophus Reich. ii. p. 188 (1902).

No. 5231. a. J. Ponthierville, Upper Congo, 2000 ft., 21st Feb.

Iris dark hazel; upper mandible black, lower mandible pale grey; feet dark grey.

INDICATOR VARIEGATUS Less.

Indicator variegatus Reich. ii. p. 108 (1902).

No. 5009. a. δ vix ad. South-west Uganda, 4000 ft., 29th Sept.

Iris dark hazel; bill dark horn-colour; feet dark greyish-green.

In this example of the Variegated Honey-Guide the markings on the throat, fore-neck, and chest take the form of spots rather than streaks, each feather being black margined all round with white. Apparently individuals with the

throat &c. streaked are in fully adult plumage, while those with the throat &c. spotted are in immature plumage.

Barbatula flavisquamata (Verr.).

Barbatula flavisquamata Sharpe, Ibis, 1904, p. 618.

Barbatula scolopacea consobrina Reich. ii. p. 145 (1902).

No. 5193. a. \eth . Below Kasonge, Upper Congo, 2000 ft., 10th Feb.

Iris very pale yellow; bill and feet black.

This small Barbet from Kasongo is perfectly similar to typical examples of *B. flavisquamata* from Gaboon and Camaroon.

The differences between this species and B. stellata (Jard. & Fras.) have already been briefly noticed by Dr. Sharpe (op. cit.). The latter species, found in Fernando Po, is a larger bird and, in addition to its duller plumage, has the forehead sooty-brown without pale yellow tips to the feathers, and the bill proportionately very much longer and stouter. The culmen measures 0.68-0.72 inch, as compared with 0.56-0.58 in B. flavisquamata.

B. consobrina (Reich.) is apparently synonymous with B. tlavisquamata (Verr.), of which Mr. Carruthers's bird is no doubt a typical example.

BARBATULA EXTONI Layard.

Barbatula extoni Reich. ii. p. 150 (1902).

No. 5126. a. J. North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris dark hazel; bill and feet black.

This specimen differs from typical examples of *B. centralis* Reich. from Ndussuma, Lake Albert, in having the pale lemon-yellow chin and throat contrasting with the breast, which is washed with ochre, and the inner wing-coverts margined with bright golden-yellow. In both these characters the Tanganyika bird most nearly resembles *B. extoni* Layard, and though the breast is rather brighter and yellower than in any of the examples in the British Museum, I have, for the present, referred it to that species. *B. extoni* is known to range from S. Africa northwards to Nyasaland and Angola.

Barbatula leucolæma Verr.

Barbatula leucolaima Reich. ii. p. 147 (1902).

No. 5185. a. &. Below Kasongo, Upper Congo, 2000 ft., 10th Feb.

Iris dark hazel; bill black; feet dark grey.

In a large series of West-African examples of this Barbet in the British Museum the measurement of the wing varies from 2·0-2·1 inches. In the bird from Kasongo the wing measures 2·05 inches.

BARBATULA MFUMBIRI Grant.

Barbatula mfumbiri Grant, Bull. B. O. C. xix. p. 107 (1907). No. 5056. a. 3. Mfumbiro Volcanoes, 6000 ft., 26th Nov. (Type of the species.)

Iris dark hazel; bill and feet black.

This Barbet is most nearly allied to B. leucolæma Verr., but is larger; the chest is greyish-white instead of white, and the rest of the underparts are duller and of a more greenish-yellow colour. As regards the coloration of the underparts, it closely resembles B. jacksoni Sharpe; but the rump is pale sulphur-yellow, as in B. leucolæma, and not bright chrome-yellow. The measurements are:—culmen 0.5 inch; wing 2.3; tail 1.13; tarsus 0.6.

In eleven examples of this species from Ruwenzori the measurements are as follows:— $4 \ 3$, wing $2\cdot15-2\cdot3$ inches; $7 \ 2$, wing $2\cdot18-2\cdot3$.

Lybius irroratus (Cab.).

Lybius torquatus irroratus Reich. ii. p. 126 (1902).

No. 5145. a. d. East of Kasongo, Upper Congo, 2500 ft., 8th Jan.

Iris brown; bill and feet black.

The bird obtained by Mr. Carruthers has a wing-measurement of 87 mm., and apparently belongs to this smaller form of the Black-collared Barbet (*L. torquatus* Dumont) and not to *L. congicus* Reich., if the latter is really separable from *L. irroratus*.

Gymnoschizorhis leopoldi (Shelley).

Gymnoschizorhis leopoldi Reich. ii. p. 37 (1902).

No. 5012. a. J. South-west Uganda, 4000 ft., 29th Sept.

Iris dark grey; bare skin of the face and throat black; bill and feet black.

[King Leopold's Touraco was met with in great numbers in South-west Uganda, but was not seen in other parts of that Protectorate.—D. C.]

Musophaga Rossæ Gould.

Musophaga rossæ Reich. ii. p. 29 (1902).

Nos. 5073, 5075, 5076. a-c. \circlearrowleft \circ . Island of Kidjwe, Lake Kivu, 4900 ft., 10th & 11th Dec.

Iris dark hazel, bare skin round the eyes yellow; upper mandible yellow, orange at the base; lower mandible red, yellow at the tip; feet black.

CEUTHMOCHARES AËREUS (Vieill.).

Ceuthmochares areus Reich. ii. p. 73 (1902).

No. 5244. $a. \ \circ$. Ponthicrville, Upper Congo, 2000 ft., 22nd Feb.

Iris reddish-brown; bill yellow; barc skin on the face pale blue; feet black.

Dr. Reichenow distinguishes the examples of this Cuckoo which occur between Niam-Niam and Lake Victoria under the name *C. intermedius* Sharpe; but I agree with Captain Shelley [Cat. Birds B. M. xix. p. 402 (1891)] in regarding them as inseparable from typical *C. aëreus*, which was first procured at Malimbe, at the mouth of the Congo.

Cuculus solitarius Steph.

Cuculus solitarius Reich. ii. p. 87 (1902).

No. 5130. a. d. North-west of Lake Tanganyika, 4000 ft., 3rd Jan.

Iris dark hazel; bill black, yellow at the base; feet yellow.

HAPALODERMA NARINA (Steph.).

Apaloderma narina Reich. ii. p. 212 (1902).

No. 5245. a. d. Ponthierville, Upper Congo, 2000 ft., 22nd Feb.

Iris dark hazel; bill pale green, yellow at the base; throat mauve, bare skin green; feet flesh-colour.

CYPSELUS ÆQUATORIALIS V. Müll.

Cypselus æquatorialis Grant & Reid, Ibis, 1901, p. 671.

Apus æquatorialis Reich. ii. p. 379 (1902).

? Apus reichenowi Neumann, Bull. B. O. C. xxi. no. cxi. p. 57 (1908).

No. 5106. a. \circ . North-west of Lake Tanganyika, 2800 ft., 28th Dec.

Iris dark hazel; bill and feet black.

This specimen is of great interest. The breast and belly are in worn rusty plumage and of a nearly uniform sooty-brown colour, with scarcely a trace of the white margin and black subterminal band characteristic of each feather of the underparts in freshly moulted examples of *C. æquatorialis*. Among the worn plumage, however, numerous new feathers, with the blackish subterminal band and distinct white tip, are making their appearance.

Professor Neumann has recently described as new, under the name of *Apus reichenowi*, a Swift which must closely resemble this worn specimen of *C. æquatorialis*, and may prove to be a faded example of that species. It is said to have the underparts, below the white throat, uniform sootybrown, and to live "side by side with *A. æquatorialis* and other Swifts" which inhabit the mountains of Masailand.

CYPSELUS STREUBELI Hartl.

Apus streubeli Reich. ii. p. 381 (1902).

No. 5005. a. δ . South-west Uganda, 4000 ft., 26th Sept.

Iris dark brown; bill black; feet brown.

This specimen belongs to the smaller race of C. caffer Licht. The wing measures 5.35 inches (=137 mm.).

Mr. Carruthers found the species breeding.

LOPHOCEROS FASCIATUS (Shaw).

Lophoceros fasciatus Reich. ii. p. 248 (1902).

No. 5202. a. d. Below Kasongo, Upper Congo, 2000 ft., 12th Feb.

Iris dark brown; bill red and pale yellow; feet dark brown.

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BYCANISTES SHARPEI Elliot.

Bycanistes sharpei Reich. ii. p. 245 (1902).

No. 5178. a. J imm. Below Kasongo, Upper Congo, 2000 ft., 7th Feb.

Nos. 5220, 5237. b, c. [\S] et \Im imm. Ponthierville, Upper Congo, 2000 ft., 19th & 21st Feb.

Adult. Iris dark hazel; bill pale yellow; feet black.

Immature. Iris dark hazel; bill greyish-green; feet grey. The type specimen of B. sharpei procured by Hamilton in Angola is no doubt an immature male, having the larger bill and large black patch on the basal part of the upper and lower mandibles characteristic of that sex, while the casque is scarcely developed. It agrees almost exactly with a male procured near Efulen, Camaroon, by Mr. G. L. Bates, but has a varying amount of black at the base of the four

which is probably somewhat older, these are almost pure white. A second male from the River Ja, Camaroon, also procured by Mr. Bates (cf. Sharpe, 'Ibis,' 1904, p. 609), has the bill similarly coloured, but appears to be a fully adult bird with a well-developed casque terminating abruptly near the point of the culmen.

outermost pairs of tail-feathers, while in the Efulen bird,

The bill of the adult female is much smaller than that of the adult male, and is pale yellow without any black patches at the base; the casque also is much less developed.

Bill (measured from gape to tip) in adult male 4.0 inches; casque 3.7.

Bill (measured from gape to tip) in adult female 3.3 inches; casque 2.6.

Fully adult birds of both sexes have the four outer pairs of tail-feathers pure white, or with only slight traces of black at the extreme base of some of the feathers.

Coracias caudatus Linn.

Coracias caudatus Reich. ii. p. 223 (1902).

No. 5151. a. \circlearrowleft . East of Kasongo, Upper Congo, 2500 ft., 9th Jan.

Iris pale brown; bill black; feet dirty yellow.

HALCYON CHELICUTENSIS (Stanley).

Halcyon chelicuti Reich. ii. p. 271 (1902).

No. 5121. a. \circ . North-west of Lake Tanganyika, 3000 ft., 2nd Jan.

Iris dark brown; bill black, lower mandible red; feet dark red.

Myloceyx Ruficeps (Hartl.).

Myioceyx ruficeps Reich. ii. p. 289 (1902).

No. 5229. a. \circ . Ponthierville, Upper Congo, 2000 ft., 20th Feb.

Iris dark hazel; bill and feet red.

The occurrence of this beautiful little Kingfisher on the Upper Congo is worthy of note. It has recently been procured in Camaroon by Mr. W. L. Bates's collectors; and Dr. Sharpe (cf. 'Ibis,' 1904, p. 607) expresses the opinion that *M. lecontei* from Gaboon will probably prove to be the young of *M. ruficeps*.

CERYLE MAXIMA (Pall.).

Ceryle maxima Reich. ii. p. 298 (1902).

Nos. 5107, 5114. *a*, *b*. ♀. North-west of Lake Tanganyika, 2800 ft., 28th Dec.

Iris dark hazel; bill and feet black.

GLAUCIDIUM PERLATUM (Vieill.).

Glaucidium perlatum Reich. i. p. 674 (1901).

No. 5115. α . \circ . North-west of Lake Tanganyika, 2800 ft., 1st Jan.

Iris pale yellow; cere black; bill pale greenish-yellow; feet brown, soles yellow, claws black.

Buteo augur Rüpp.

Buteo augur Reich. i. p. 592 (1901).

No. 5043. a. 9. Mfumbiro Volcanoes, 5000 ft., 21st Nov. Iris brown; cere yellow; bill black, blue at the base; feet yellow.

Scopus umbretta Gmel.

Scopus umbretta Reich. i. p. 353 (1901).

No. 5019. a. \circ . Lake Albert Edward, 3100 ft., 22nd Oet.

Iris dark hazel; bill and feet black.

[The Hammer-head was very common and breeding.— D. C.]

Hydrochelidon nigra (Linn.).

Hydrochelidon nigra Reich. i. p. 70 (1900).

No. 5055. n. 3. Mfumbiro Volcanoes, 5000 ft., 25th Nov.

Iris dark hazel; bill black; feet red.

[Large flocks of the Black Tern were seen on the cultivated land north of Lake Kivu.—D. C.]

CREX CREX (Linn.).

Crex crex Reich. i. p. 277 (1900).

No. 5081. a. d. Lake Kivu, 4900 ft., 15th Dec.

Iris dark brown; bill and feet brown.

TURTUR SENEGALENSIS (Linn.).

Turtur senegalensis Reich. i. p. 406 (1901).

No. 5116. a. \circ . North-west of Lake Tanganyika, 2800 ft., 1st Jan.

Iris dark hazel; bill black; feet red.

VINAGO CALVA (Temm.).

Vinago calva Reich. i. p. 394 (1901).

No. 5183. $a.\ \mathcal{J}$. Below Kasongo, Upper Congo, 2000 ft., 8th Feb.

Iris blue; frontal knob and base of bill scarlet, tip pale grey; feet yellow, claws pale grey.

Vinago nudirostris Swains.

Vinago calva nudirostris Reich. i. p. 396 (1901).

Nos. 5001, 5002. a, b. \circ . West coast of Lake Victoria, 4000 ft., 22nd Sept.

Iris grey; bill scarlet, white at the tip; feet scarlet.

[This Green Pigeon was found in very large flocks in open bush-country.—D. C.]

PTERNISTES CRANCHI (Leach).

Pternistes cranchi Reich. i. p. 457 (1901).

No. 5105. a. δ . North-west of Lake Tanganyika, 2800 ft., 28th Dec.

Iris dark hazel; bare skin on throat red; bill and feet red.

[Cranch's Bare-throated Francolin was found in great numbers in long grass and among thick bush.—D. C.]

Francolinus coqui (Smith).

Francolinus coqui Reich. i. p. 492 (1901).

Nos. 5013, 5014. a, b. J. S.W. Uganda, 4800 ft., 1st & 3rd Oct.

Iris reddish-brown; bill black, yellow at the base; feet yellow.

XI.—On further Collections of Birds from the Efulen District of Camaroon, West Africa. By R. Bowdler Sharpe, LL.D. With Notes by the Collector, G. L. Bates.— Part VI.*

(Plate VII.)

With this paper I conclude my account of Mr. Bates's collections received up to the end of 1907. He has recently sent some more consignments which I hope to be able to describe shortly.

As before, Mr. Bates's interesting notes on habits are enclosed in square brackets [].

CISTICOLA ERYTHROPS.

Cisticola erythrops (Hartl.); Sharpe, Cat. B. Brit. Mus. vii. p. 250; id. Hand-l. B. iv. p. 196; Reichenow, Vög. Afrikas, iii. p. 568 (1905).

No. 170. & ad. Efulen, June 1, 1903. "Abankwat."

No. 593. 2 ad. River Ja, May 27, 1904. Eggs forming.

Nos. 637, 638. ♂; 684. ♀. River Ja, June 6, 1904.

Nos. 838, 841. & ad. Efulen, July 3, 4, 1905.

No. 1008. Ad. Efulen, Aug. 5, 1905.

No. 1179. 9 ad. River Ja, Dec. 22, 1905.

Nos. 1255, 1311, 1330. 3 9. River Ja, Jan. 6–18, 1906.

Nos. 1483, 1508. Q ad. River Ja, March 1, 1906.

^{*} Cf. Sharpe, above, pp. 117-129.